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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,482	12/07/2004	Johannes Hendrikus Maria Spruit	NL 020486	6123

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

RIVERO, MINERVA

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/517,482	Applicant(s) SPRUIT, JOHANNES HENDRIKUS MARIA	
	Examiner Minerva Rivero	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 7-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Büchler *et al.* (US 2004/0100841).

5. Regarding claim 1, Büchler *et al.* disclose a method of scanning an optical recording medium in the form of a disk having data storage regions arranged in generally concentrically arranged track sections therein, the method comprising rotating the optical recording medium such that the disk moves in a spinning direction (S) with respect to a scanning spot, and maintaining tracking in a radial sense using a push-pull radial error signal generated by detecting push-pull signals from at least three radiation spots formed on the disk, a main spot (c), a forward spot (a) and a rear spot (b), to move the spots in a radial scanning direction (R) across adjacent track sections during a plurality of rotations of the disk, wherein the forward spot scans the optical recording medium in a position which is tangentially offset from the main spot in a direction opposite to the spinning direction, and the rear spot in a direction coinciding with the spinning direction, characterized in that the method comprises positioning the three radiation spots with radial offsets such that the forward spot is located in a position which is radially offset from the main spot in a direction coinciding with the radial scanning direction, and such that the rear spot is located in a position which is radially offset from the main spot in a direction opposite to that of the radial scanning direction ([0005], Lines 2-5; [0006], Lines 1-11, see Fig. 6; [0017], Lines 15-19).

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6. Regarding claim 2, Büchler *et al.* disclose the push-pull signals are detected using three spot detectors, first order satellite spot detectors (40, 42) each including two detector elements providing respective signals a1, a2, b1, b2, and zeroth order spot detector (44) including four quadrant detector elements providing respective signals c1, c2, c3, c4 ([0005], Lines 19-20; [0007], Lines 1-5; see Fig. 15, element 11; see Fig. 10).

7. Regarding claim 3, Büchler *et al.* suggest a push-pull radial error signal (RE) is processed as follows:

$$RE = (c1 - c2 - c3 + c4) - \gamma(a1 - a2 + b1 - b2)$$

where γ is a grating ratio (see DPP (*differential push-pull*) in Fig. 10, A, B, C and D correspond to c1, c2, c4 and c3, respectively, E2, E1, F2, F1 correspond to a1, a2, b1 and b2, respectively, and constant k corresponds to grating ratio γ).

8. Regarding claim 4, disclose a push-pull radial error (RE) is processed as follows:

$$RE = c1 - c2 - c3 + c4 - \gamma_1(a1 - a2) - \gamma_2(b1 - b2)$$

where γ_1 and γ_2 are different grating ratios (*different reflecting factors are applied to secondary beam E-F-G-H and secondary beam J-K-L-I*, [0049], Line 6 – [0050], Line 6).

9. Regarding claim 5, the processing of the radial error signal is altered in dependence on a scanning condition ([0043] – [0044], see Figs. 10 (a) and (b)).

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10. Regarding claim 6, the processing method is selectively actuated during a first-write process (*DPP method is applied with the occurrence of a track error or lens-movement dependent track offset component*, ([0043] – [0044], see Figs. 10 (a) and (b)).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ma *et al.* (US 6,611,482) disclose an error signal detecting apparatus and an optical recording apparatus.

Kubo *et al.* (US 6,567,353) disclose an optical head with light receiving element surfaces divided into at least three light receiving areas.

Bierhoff *et al.* (US 6,512,732) disclose a device for optically scanning information tracks on a plane using two subbeams.

Yamashita *et al.* (US 6,504,799) disclose a tracking error balance adjustment circuit used for an optical disk playback apparatus.

Shimano *et al.* (US 6,400,664) disclose an optical head including electrical circuit which produces focus error signal unaffected by variations in intensity distributions of reflected light beams.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 5/11/06



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER